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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,960	01/29/2004	Yi-Xiong Lin	3313-1103P	2327

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EXAMINER	
PENG, CHARLIE YU	
ART UNIT	**PAPER NUMBER**
2883	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/765,960	LIN ET AL.	
	Examiner	Art Unit	
	Charlie Peng	2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 10-12* is/are rejected.

7)☒ Claim(s) *8,9 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 10/765,960.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *01/29/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Brian Healy
Primary Examiner

DETAILED ACTION

Claim Objections

Claim 1 is objected to because of the following informalities:

"plate" should be "platen" in line 7;

"a flat surface" should be "the flat surface" in lines 9-10.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. PGPub 2002/0129492 to Botos et al. in view of U.S. Patent 6,822,407 to Hunter. Botos teaches a five-axis mechanical positioning device useful in the alignment of fiber optics (such as aligning and connecting transmitters, amplifiers, and receivers to optical fibers). The device has a base plate **10**, an X-Y-Z-Theta mechanical positioner (See at least Fig. 8 and description) and a tilt stage (with a flat carriage plate **88**) attached to the top of a theta stage (rotation stage) **66** of the mechanical positioner. (See at least Fig. 12 and its description) The flat plate **88** is therefore able to move with respect to x, y, and z axes, rotate aboutd the z axis, and tilt with respect to the y axis.

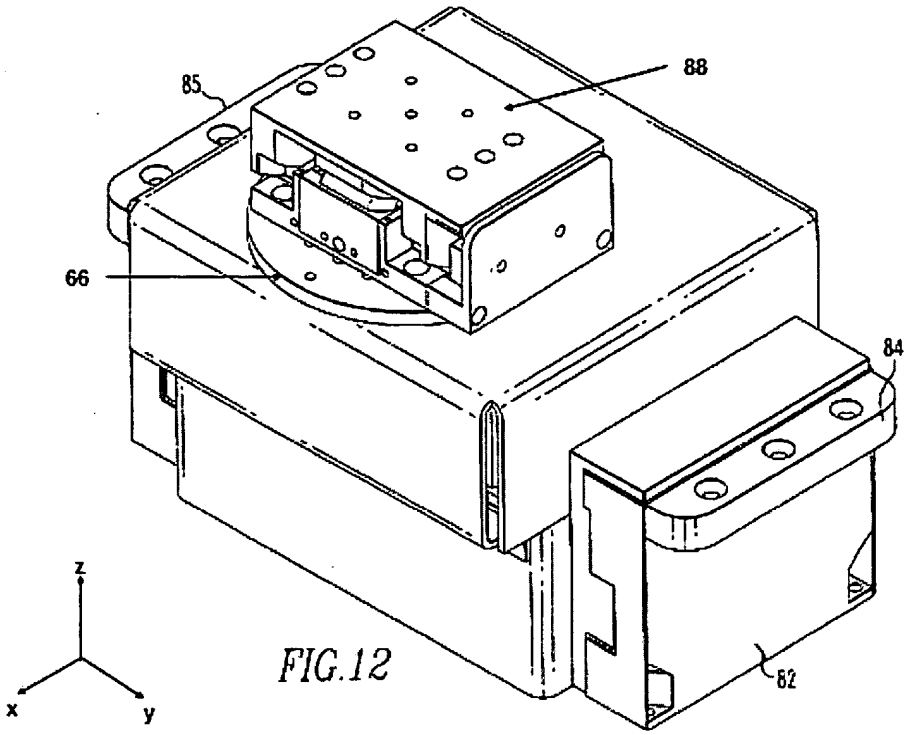

FIG.12

Botos et al. do not teach a retaining member on the flat plate. Hunter teaches a multi-axis manipulator having at least one lift pin **14** on a chuck **10** (equivalent to the carriage stage), such that the lift pins **14**, with an object place on top, are above the surface of the chuck **10** or they may slide, within bores, flush against or beneath the surface of the chuck **10**. Additionally, each of the lift pins has a hollow central pathway (suction aperture) for connection to a vacuum pressure line (suction module) for securing the object. (See at least Figs. 2 & 3 and description) The hollow pathways have their ends flush with top edges of the lift pins **14**. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Botos' invention by using a vacuum chuck having suction capability on the stage to receive the object. The motivation would be to have the object be more firmly held onto the stage.

Claims 1, 3, 6, 7, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Botos et al. in view of U.S. Patent 6,864,955 to Nishi et al. Botos teaches a five-axis mechanical positioning device useful in the alignment of fiber optics except for a retaining member on the flat plate. Nishi et al. teach a multi-axis movement stage **2** on a base **3**, and a plurality of magnetic drive members **4a-4d** therebetween. The stage **2** has, on its top side, a holder **10** (retaining member), upon which the object **W** (here a wafer) is placed. Nishi et al. further teaches that an electrode **10a** (which can be a conductive metal) is provided on a loading surface of the holder **10** for electrostatic adsorption of the object thereon, a rechargeable battery **100** provides power for electrostatic adsorption, and the battery **100** can be recharged through a power receipt terminal **9a** (electric connector). (See at least Fig. 1 and description) The stage **2** can also be adapted for vacuum adsorption of the object, wherein a plurality of ring-shaped orifices are placed on the surface of the holder **10**, and a suction module in the form of a vacuum line **73** is placed on a side of the stage **2**. (See at least Fig. 15 and description) It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Botos' invention by adding an electrostatic or vacuum adsorption element. The motivation would be to have the object be more firmly held onto the stage.

With specific reference to claim 6, vacuum chucks are well known in the art to be used for multi-axis movement sample holders. Although Nishi et al. do not specifically state a single pattern the orifices should follow, it would have been obvious to one of ordinary skill in the art to select any pattern suitable for the application, such as one

depicted in Fig. 1B of U.S. Pattern 6,780,092 to Yi, where the suction holes are located in the center of the vacuum chuck and disperse outwardly. The motivation would be to have higher concentration (with respect to number of holes) in the center so that an adequate mount of vacuum adsorption can be applied to smaller samples.

With specific reference to claim 11, Nishi et al. teaches, in another embodiment of the invention, a base member **28** to be made from ceramic material (insulator). (See at least column 51, line 14)

Allowable Subject Matter

Claim 8 is objected to as being dependent upon a rejected base claim 1, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record, taken alone or in combination, fails to disclose or render obvious the platen for holding an object having an electric a cavity which holds a temperature sensor for measuring the temperature of the measuring environment in combination with the rest of the limitations of the base claim.

Claim 9 is also objected to as being indirectly dependent upon claim 1 but would be allowable by virtue of being dependent upon claim 8.

Claim 13 is objected to as being dependent upon a rejected base claim 1, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. A search in prior art did not result in relevant art teaching a retaining member that is at least partially exposed/buried in an elongated trough on a surface of the stage and in contact with the object on the stage. The prior

art of record, taken alone or in combination, fails to disclose or render obvious these limitations in combination with the rest of the limitations of the base claim.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see form PTO-892 for additional references cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlie Peng whose telephone number is (571) 272-2177. The examiner can normally be reached on 9 am - 6 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charlie Peng
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July 18, 2005

Brian Healy
Primary Examiner